

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1 and 16 and ADD claims 44-45 in accordance with the following:

Claim 1 (Currently Amended) A recording medium, comprising:

a data area disposed between a lead-in area and a lead-out area, including a user data area to record data, and at least a spare area having a replacement area to store data to replace a defective area occurring in the user data area and position information regarding the defective area; and

a defect management area (DMA) arranged in at least one of the lead-in area and the lead-out area, to store defect information identifying positions of the defective area and the replacement area;

~~wherein position information regarding the defective area is recorded in the replacement area.~~

Claim 2 (Previously Presented): The recording medium of claim 1, wherein the defect information includes defect management information to manage the defect information, and wherein the defect management information is updated in the defect management area (DMA) every recording operation or in response to a predetermined number of recording operations.

Claim 3 (Previously Presented): The recording medium of claim 2, further comprising a temporary defect management area (TDMA) arranged in one of the lead-in area and the lead-out area in which temporary management information lastly updated is recorded.

Claim 4 (Previously Presented): The recording medium of claim 2, wherein the defect information includes a space bit map (SBM) to provide information for differentiating available clusters from unavailable clusters on the recording medium.

Claim 5 (Previously Presented): The recording medium of claim 1, wherein state information regarding the defective area is recorded in the replacement area.

Claim 6 (Previously Presented): The recording medium of claim 5, wherein the position information and state information regarding the defective area are error-correction code (ECC) encoded during ECC encoding of data recorded in the replacement area.

Claim 7 (Previously Presented): The recording medium of claim 5, wherein ECC encoded data and the position information and state information are recorded in the replacement area.

Claims 8-15 (Canceled):

Claim 16 (Currently Amended): An apparatus, comprising:
a recording/reading unit to record/read data with respect to a recording medium comprising a data area disposed between a lead-in area and a lead-out area, including a user data area and at least a spare area having a replacement area to replace a defective area occurring in the user data area; and a defect management area (DMA) arranged in one of the lead-in area and the lead-out area; and
a controller arranged to control the recording/reading unit to record data ~~on the replacement area,~~ for replacing the defective area of the recording medium, and position information regarding the defective area, on the replacement area located in the spare area of the recording medium, and to record defect information identifying positions of the defective area and the replacement area in the defect management area (DMA), ~~and to record position information regarding the defective area in the replacement area.~~

Claim 17 (Previously Presented): The apparatus of claim 16, wherein the defect information in the defect management area (DMA) includes temporary defect management information to manage the defect information.

Claim 18 (Previously Presented): The apparatus of claim 16, wherein the controller controls the recording/reading unit to record defect information lastly recorded in the defect management area (DMA), during a finalizing of the recording medium.

Claim 19 (Previously Presented): The apparatus of claim 16, wherein the controller controls the recording/reading unit to record state information regarding the defective area in the replacement area.

Claim 20 (Previously Presented): The apparatus of claim 19, wherein the controller controls the recording/reading unit to ECC encode the position information and the state information with data to be recorded in the replacement area.

Claim 21 (Previously Presented): The apparatus of claim 19, wherein the controller controls the recording/reading unit to record the position information and state information and ECC encoded data in the replacement area.

Claims 22-43 (Canceled):

Claim 44 (New): A recording medium, comprising:

a data area disposed between a lead-in area and a lead-out area, including a user data area to record data, and at least a spare area having a replacement cluster in which data for replacing a defective cluster occurring in the user data area is written together with position information regarding the defective cluster; and

a defect management area (DMA) arranged in at least one of the lead-in area and the lead-out area, to store defect information identifying positions of the defective cluster and the replacement cluster.

Claim 45 (New): An apparatus, comprising:

a recording/reading unit to record/read data with respect to a recording medium comprising a data area disposed between a lead-in area and a lead-out area, including a user data area and at least a spare area having a replacement cluster for replacing a defective cluster occurring in the user data area, and a defect management area (DMA) arranged in one of the lead-in area and the lead-out area; and

a controller arranged to control the recording/reading unit to record position information regarding the defective cluster together with data for replacing the defective cluster of the recording medium on the replacement cluster, in the spare area of the recording medium, and to record defect information identifying positions of the defective cluster and the replacement cluster in the defect management area (DMA) of the recording medium.